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EU MISSIONS

CANCER

Concrete solutions for our greatest challenges



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#EUmissions #HorizonEU #MissionCancer



Mission on Cancer

CHALLENGES

- **2.7 million people** in the EU are **diagnosed** each year
- **1.3 million people die** from cancer each year (this no. will increase)
- **Total cost of cancer** in Europe in 2018: €199 billion
- Impact of **COVID-19 pandemic** and **war in Ukraine**

GOAL

Improve the lives of more than 3 million people by 2030, through prevention, cure and for those affected by cancer including their families, to live longer and better, jointly with the Europe's Beating Cancer Plan

Four Mission Objectives

1. Understanding cancer
2. Prevention & early detection
3. Diagnosis and treatment
4. Quality of life

Transversal priorities: addressing equity, innovation, childhood cancer and personalised medicine



Concrete Actions

- Horizon Europe to provide €378.2 million (2021-23) for strategic R&I agenda
- Joint governance at EU level
- UNCAN.eu platform
- European Cancer Patient Digital Centre
- Network of Comprehensive Cancer Infrastructures
- Synergies with Europe's Beating Cancer Plan and other EU and national initiatives and funding programmes



Understanding

- **Objective:** improving the understanding of the development of cancer in the context of the environment, work, and lifestyle.
- **Actions:**
 - **Establish the ‘UNCAN.eu’ platform:** a digital platform where researchers share and have access to high-quality research data.
 - **Better understand healthy vs cancer cells at individual and population level** i.e. how do healthy and cancer cells interact and develop because of risk factors in environment, at work, etc.
 - **Better understand cancer-patient** molecular, cell, organ, organismal interactions.
 - **Better understand the role of genetics in cancer.**



Prevention

- **Objective:** boosting cancer prevention for EU citizens.
- **Actions:**
 - **Develop new methods and technologies for screening and early prediction:** i.e. imaging, tissue, fluid, clinical biomarkers, also using Artificial Intelligence.
 - **Conduct implementation research** to enhance cancer prevention programmes.
 - **Establish synergies on prevention with other EU missions:** actions under the other Missions will help cancer prevention.
 - **Develop a one-stop cancer information centre on prevention:** an evidence-clearing house to support Member States in implementing effective cancer prevention strategies.
 - **Boost research and innovation** into risk assessment.
 - **Optimise access to screening** to make them faster, more accurate and personalised.



Diagnostics & Treatment

- **Objective:** optimising the diagnostics and treatment of cancer based on the principle of equitable access.
- **Actions:**
 - **Support the creation of Network of Comprehensive Cancer Infrastructures**, i.e. national or regional infrastructures that integrate cancer care, research, training and education.
 - **Develop a clinical trial programme on treatments**, i.e. through advanced personalised medicine approaches.
 - **Develop a clinical trial programme on diagnostics** : i.e. through techniques such as imaging and/or AI-powered integrated diagnostic methods.
 - **Develop twinning programmes** for capacity-building.



Quality of Life

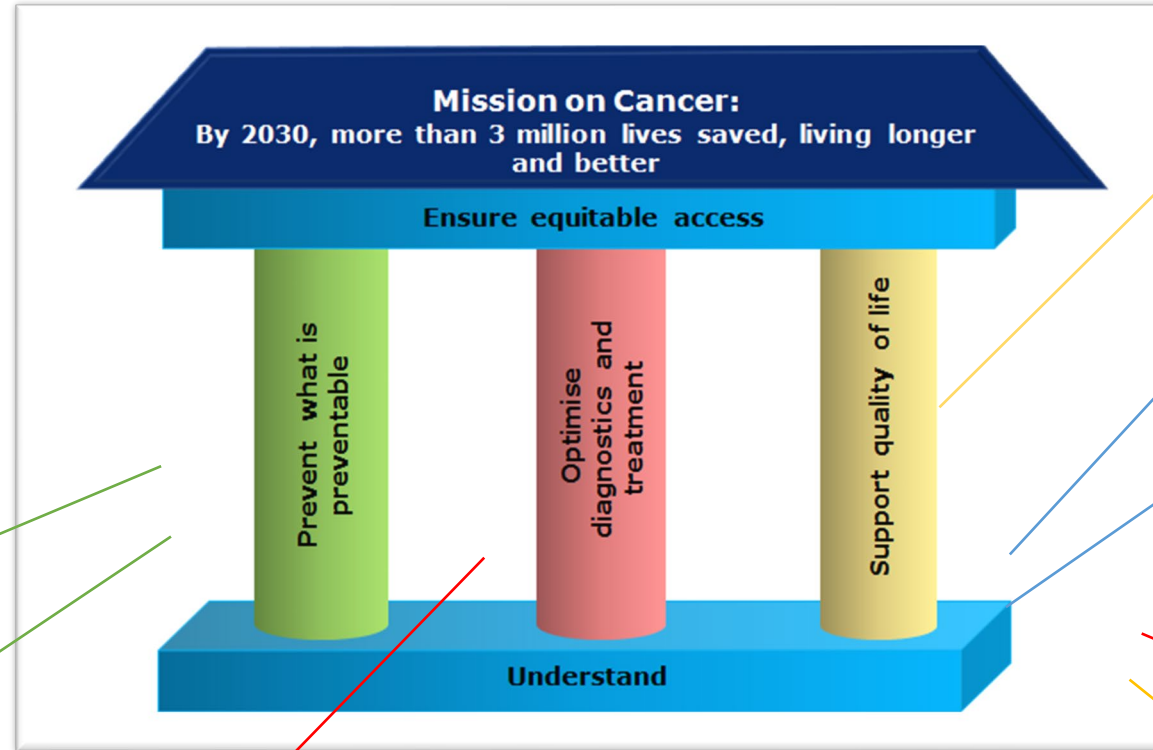
- **Objective:** improving the quality of life of cancer patients, survivors and their families through analysing all key factors and needs related to quality of life.
- **Actions:**
 - **Collect and analyse data on today's unmet needs of cancer patients and survivors** through quality of life metrics and indicators to capture key elements of quality of life of those affected by cancer.
 - **Set up the European Cancer Patient Digital Center** to enable patients and survivors to share their health data for R&I and policy development.
 - **Develop early predictors for quality of life** of patients and survivors.
 - **Design monitoring programmes for survivors of childhood cancer** to address vulnerability due to early life disruption and potential adverse effects in adulthood.



Horizon Europe Mission WP2021-2022 topics

Overall approach

- Apply mission guiding principles
- Synergies with Europe's Beating Cancer Plan actions & Eu4Health Programme
- Total budget 2021-2022: € 252 M



Develop new methods and technologies for screening and early detection
HORIZON-MISS-2021-CANCER-02-01

HORIZON-MISS-2022-CANCER-01-01: Improving and upscaling primary prevention of cancer through implementation research*

HORIZON-MISS-2022-CANCER-01-03: Pragmatic clinical trials to optimise treatment for cancer patients*

HORIZON-MISS-2022-CANCER-01-05: Creation of national cancer mission hubs to support the implementation of the Mission on Cancer*

Develop and validate a set of quality of life measures for cancer patients and survivors
HORIZON-MISS-2021-CANCER-02-02

Preparing UNCAN.eu, a European initiative to understand cancer
HORIZON-MISS-2021-UNCAN-01-01

Better understand healthy versus cancer cells at individual and population level*
HORIZON-MISS-2021-CANCER-02-03

HORIZON-MISS-2022-CANCER-01-02: Strengthen research capacities of comprehensive cancer infrastructures*

HORIZON-MISS-2022-CANCER-01-04: Towards the creation of a European Cancer Patient Digital Centre*

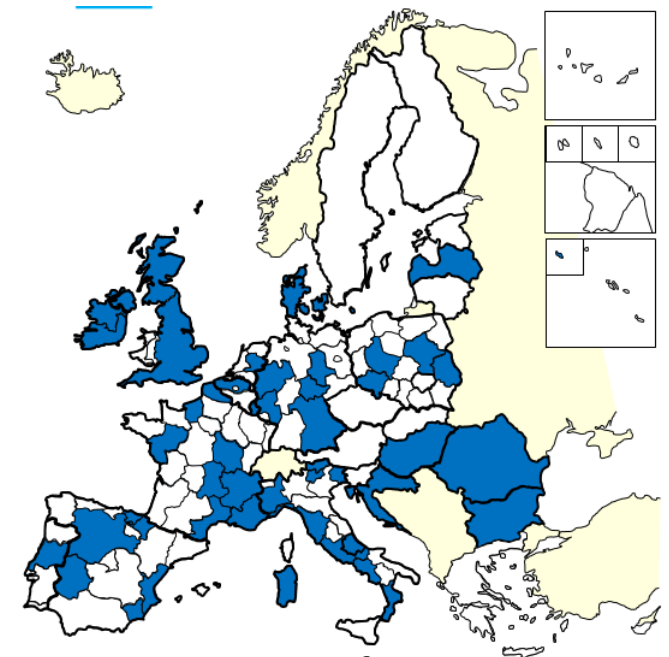
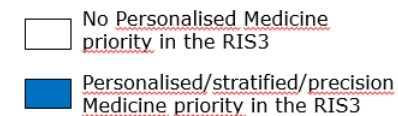


Role of regions, local communities

- **Competencies for healthcare:** i.e. creation of Comprehensive Cancer Infrastructures, introduction of screening programmes
- Many regional cancer projects supported through **Cohesion Policy**; some RRF plans will support cancer-specific actions.
- Many **Smart Specialisation Strategies** cover medical and health science.
- Future **National Cancer Mission Hubs:** i.e. to support policy dialogue on cancer at national, regional and local level

Personalised Medicine in the RIS3 priorities

53 RIS3 out of the 135 analysed, explicitly prioritise **Personalised Medicine (38%)**





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Thank you!

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